

[4910-13-P]

#### DEPARTMENT OF TRANSPORTATION

**Federal Aviation Administration** 

**14 CFR Part 39** 

[Docket No. FAA-2017-0814; Product Identifier 2017-NM-066-AD]

**RIN 2120-AA64** 

**Airworthiness Directives;** The Boeing Company Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes. This proposed AD was prompted by significant changes made to the airworthiness limitations (AWL) related to fuel tank ignition prevention and the nitrogen generation system. This proposed AD would require revision of the maintenance or inspection program, as applicable, to include the latest revision of the AWLs. We are proposing this AD to address the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. **ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.
  - Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West
   Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC
   20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m.,
   Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet https://www.myboeingfleet.com. You may view this service information at the FAA, Transport Standards Branch, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0814; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Tak Kobayashi, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6499; fax: 425-917-6590; email: takahisa.kobayashi@faa.gov.

#### SUPPLEMENTARY INFORMATION:

#### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section.

Include "Docket No. FAA-2017-0814; Product Identifier 2017-NM-066-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

# **Discussion**

The FAA has examined the underlying safety issues involved in fuel tank explosions on several large transport airplanes, including the adequacy of existing regulations, the service history of airplanes subject to those regulations, and existing maintenance practices for fuel tank systems. As a result of those findings, we issued a final rule titled "Transport Airplane Fuel Tank System Design Review, Flammability Reduction and Maintenance and Inspection Requirements" (66 FR 23086, May 7, 2001). In addition to new airworthiness standards for transport airplanes and new maintenance requirements, that rule included Amendment 21-78, which established Special Federal Aviation Regulation No. 88 ("SFAR 88") at 14 CFR part 21. Subsequently, SFAR 88

was amended by: Amendment 21-82 (67 FR 57490, September 10, 2002; corrected at 67 FR 70809, November 26, 2002) and Amendment 21-83 (67 FR 72830, December 9, 2002; corrected at 68 FR 37735, June 25, 2003, to change "21-82" to "21-83").

Among other actions, SFAR 88 requires certain type design (i.e., type certificate (TC) and supplemental type certificate (STC)) holders to substantiate that their fuel tank systems can prevent ignition sources in the fuel tanks. This requirement applies to type design holders for large turbine-powered transport airplanes and for subsequent modifications to those airplanes. It requires them to perform design reviews and to develop design changes and maintenance procedures if their designs do not meet the new fuel tank safety standards. As explained in the preamble to the final rule published on May 7, 2001, we intended to adopt airworthiness directives to mandate any changes found necessary to address unsafe conditions identified as a result of these reviews.

In evaluating these design reviews, we have established four criteria intended to define the unsafe conditions associated with fuel tank systems that require corrective actions. The percentage of operating time during which fuel tanks are exposed to flammable conditions is one of these criteria. The other three criteria address the failure types under evaluation: single failures, single failures in combination with another latent condition(s), and in-service failure experience. For all four criteria, the evaluations included consideration of previous actions taken that may mitigate the need for further action.

We issued AD 2008-10-10 R1, Amendment 39-16164 (75 FR 1529, January 12, 2010) ("AD 2008-10-10 R1"), which applies to certain The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes. AD 2008-10-10 R1 requires

incorporation of fuel system AWLs and also requires an initial inspection to phase in certain repetitive inspections, and repair if necessary. The fuel system AWLs were developed to satisfy SFAR 88 requirements and included in the Airworthiness Limitations Section (ALS) of the manufacturer's Instructions for Continued Airworthiness. Since we issued AD 2008-10-10 R1, the ALS has been significantly revised by the manufacturer to correct technical and editorial errors and also to add new requirements. Those changes affect the fuel system and nitrogen generation system AWLs. We have determined that the specific revisions of the ALS mandated by AD 2008-10-10 R1, and the revisions of the ALS that have been delivered with airplanes as part of the type design and airworthiness certificate, on or after March 31, 2006 (see paragraph (c), "Applicability," of AD 2008-10-10 R1, which applied to airplanes with an original standard airworthiness certificate or original export certificate of airworthiness issued before March 31, 2006), are inadequate to provide information necessary to maintain critical design features and perform inspections.

We propose to adopt this new AD to require revising the maintenance or inspection program, as applicable, to incorporate the AWLs provided in Boeing 737-600/700/700C/800/900/900ER Special Compliance Items/Airworthiness Limitations, dated January 2017 (the latest revision of the ALS). We are proposing this AD to prevent the potential for ignition sources inside the fuel tanks and also to prevent increasing the flammability exposure of the center fuel tank caused by latent failures, alterations, repairs, or maintenance actions, which could result in a fuel tank explosion and consequent loss of an airplane.

We have determined that accomplishing the revision required by paragraph (g) of this proposed AD would terminate the following requirements for that airplane:

- All requirements of AD 2008-10-10 R1.
- The revision required by paragraphs (h) and (h)(1) of AD 2008-06-03,
   Amendment 39-15415 (73 FR 13081, March 12, 2008).
- The revision required by paragraph (g) of AD 2008-17-15, Amendment 39-15653 (73 FR 50714, August 28, 2008).
- The revision required by paragraph (k) of AD 2011-18-03, Amendment 39-16785 (76 FR 53317, August 26, 2011).
- All requirements of AD 2013-15-17, Amendment 39-17533 (78 FR 52838, August 27, 2013).

# Airworthiness Limitations Based on Type Design

The FAA recently became aware of an issue related to the applicability of ADs that require incorporation of the Airworthiness Limitations section (ALS) of the Instructions for Continued Airworthiness (ICA) into an operator's maintenance or inspection program.

U.S. operators must operate their airplanes in an airworthy condition, in accordance with 14 CFR 91.7(a). Included in this obligation is the requirement to perform any maintenance or inspections specified in the ALS, and in accordance with the ALS as specified in 14 CFR 43.16 and 91.403(c), unless an alternative has been approved by the FAA.

When a type certificate is issued for a type design, the specific ALS, including its revision level, is part of that type design, as specified in 14 CFR 21.31(c).

The sum effect of these operational and maintenance requirements is an obligation to comply with the ALS revision defined in the type design referenced in the manufacturer's conformity statement. This obligation may introduce a conflict with an AD if the AD requires a specific ALS revision for new airplanes that are delivered with a later ALS revision as part of their type design.

The FAA has approved alternative methods of compliance (AMOCs) that allow operators to incorporate the most recent ALS revision into their maintenance/inspection programs, in lieu of the ALS revision required by the AD. This enables the operator to comply with both the AD and the type design.

However, compliance with AMOCs is normally optional, and we recently became aware that some operators choose to retain the AD-mandated ALS revision in their fleet-wide maintenance/inspection programs, including those for new airplanes delivered with later ALS revisions, to help standardize the maintenance of the fleet. To ensure that operators comply with the applicable ALS revision for newly delivered airplanes containing a later revision than that specified in an AD, we plan to mandate the latest ALS revision as of the effective date of an AD, if we are to mandate a specific ALS revision, and limit the applicability to those airplanes delivered on or before the effective date of that AD.

This proposed AD therefore mandates the latest ALS revision as of the effective date of the AD for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes with an original certificate of airworthiness or original export certificate of airworthiness that was issued on or before the effective date of the AD. Operators of airplanes with an original certificate of airworthiness or original export certificate of airworthiness issued

after that date must comply with the airworthiness limitations specified as part of the approved type design.

# Related Service Information under 1 CFR part 51

We reviewed Boeing 737-600/700C/800/900/900ER Special Compliance Items/Airworthiness Limitations, D626A001-9-04, dated January 2017. This service information describes AWLs that include airworthiness limitation instructions (ALI) and critical design configuration control limitations (CDCCL) tasks related to fuel tank ignition prevention and the nitrogen generation system. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

# **Proposed AD Requirements**

This proposed AD would require revisions to certain operator maintenance documents to include new actions (e.g., inspections) and CDCCLs. Compliance with these actions and CDCCLs is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by this proposed AD, the operator may not be able to accomplish the actions described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (k) of this proposed AD. The

request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before accomplishing the revision of the airplane maintenance or inspection program specified in this proposed AD do not need to be reworked in accordance with the latest revision of the CDCCLs specified by this proposed AD for incorporation. However, once the airplane maintenance or inspection program has been revised as required by this proposed AD, future maintenance actions on these components must be done in accordance with the CDCCLs specified by this proposed AD.

#### **Differences with the Service Information**

The "description" column of AWL No. 28-AWL-20 identifies certain operational tests. However, airplanes on which the actions specified in paragraph (g)(2)(ii) of AD 2011-20-07 have been done are not required to do the operational test for left center tank fuel boost pump relay R54 and right center tank fuel boost pump relay R55.

Paragraph (g) of this proposed AD would require operators to revise their maintenance or inspection program by incorporating, in part, AWL No. 28-AWL-05, "Wire Separation Requirements for New Wiring Installed in Proximity to Wiring That Goes Into the Fuel Tanks" in Boeing 737-600/700/700C/800/900/900ER Special Compliance Items/Airworthiness Limitations, D626A001-9-04, dated January 2017. Paragraph (h) of this proposed AD would allow certain changes to be made to the requirements specified in AWL No. 28-AWL-05 as an option.

#### Clarification of the Service Information

The "applicability" column of AWL No. 28-AWL-19 identifies affected airplanes. For airplanes on which the actions specified in paragraph (s) of AD 2011-18-03 have been done, incorporation of Boeing Service Bulletin 737-28A1206 is not required. Therefore, those airplanes are not affected by AWL No. 28-AWL-19 and are not required to do the functional test.

The "applicability" column of AWL No. 28-AWL-23 identifies affected airplanes. For airplanes on which the actions specified in paragraph (s) of AD 2011-18-03 have been done, incorporation of Boeing Service Bulletin 737-28A1248 is not required. Therefore, those airplanes are not affected by AWL No. 28-AWL-23 and are not required to do the functional test.

# Alternative Methods of Compliance (AMOC) Previously Approved for Compliance with AD 2008-10-10 R1

The FAA has previously issued AMOC approvals for compliance with paragraph (g)(3) of AD 2008-10-10 R1 to allow operators to incorporate alternative versions of AWL No. 28-AWL-05. AWL No. 28-AWL-05 includes the requirements for new wiring introduced by any alterations or changes to the type design, including STC modifications, in proximity to wiring that penetrates the fuel tank wall. Certain STCs that introduced new wiring near the fuel quantity indicating system (FQIS) wiring utilized design features that were different from the critical design features for fuel tank ignition prevention specified in the AD-mandated version of AWL No. 28-AWL-05. For those STCs, we have approved alternative versions of AWL No. 28-AWL-05 that specified critical design features associated with STC modifications. We have determined that certain critical design features specified in the AMOC-approved versions of AWL No. 28-AWL-05 are not acceptable to meet the intent of this AWL. Therefore, this proposed

AD does not allow credit for AMOCs previously approved under AD 2008-10-10 R1. However, based on our assessment of critical design features, we have provided an optional action under paragraph (h) of this proposed AD to allow certain changes to be made to the requirements specified in AWL No. 28-AWL-05. Under this optional action, certain critical design features we have previously approved and consider to be acceptable can be specified in AWL No. 28-AWL-05.

The requirements for new wiring versus existing wiring are specified in AWL No. 28-AWL-05. Based on these requirements, any STC modifications that are installed after the incorporation of AWL No. 28-AWL-05 (version required by paragraph (g) of this AD) must comply with AWL No. 28-AWL-05, including any mandatory rework, or the operator must request approval of an AMOC according to paragraph (k) of this proposed AD. Any STC modifications that are installed prior to the incorporation of AWL No. 28-AWL-05 (version required by paragraph (g) of this AD) are not required to be reworked for compliance with the new wiring requirements of AWL No. 28-AWL-05, except that future repair and replacement of existing wiring must follow AWL No. 28-AWL-05.

## **Costs of Compliance**

We estimate that this proposed AD affects 1,417 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

## **Estimated costs**

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Revising the maintenance or inspection program	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$120,445

# **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII,
Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress
charges the FAA with promoting safe flight of civil aircraft in air commerce by
prescribing regulations for practices, methods, and procedures the Administrator finds
necessary for safety in air commerce. This regulation is within the scope of that authority
because it addresses an unsafe condition that is likely to exist or develop on products
identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

## **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States,

or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
  - (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

# List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### § 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**The Boeing Company**: Docket No. FAA-2017-0814; Product Identifier 2017-NM-066-AD.

## (a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

#### (b) Affected ADs

This AD affects the ADs specified in paragraphs (b)(1) through (b)(5) of this AD.

- (1) AD 2008-06-03, Amendment 39-15415 (73 FR 13081, March 12, 2008) ("AD 2008-06-03").
- (2) AD 2008-10-10 R1, Amendment 39-16164 (75 FR 1529, January 12, 2010) ("AD 2008-10-10 R1").
- (3) AD 2008-17-15, Amendment 39-15653 (73 FR 50714, August 28, 2008) ("AD 2008-17-15").
- (4) AD 2011-18-03, Amendment 39-16785 (76 FR 53317, August 26, 2011) ("AD 2011-18-03").
- (5) AD 2013-15-17, Amendment 39-17533 (78 FR 52838, August 27, 2013) ("AD 2013-15-17").

# (c) Applicability

This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category, with an original standard airworthiness certificate or original export certificate of airworthiness issued on or before the effective date of this AD.

## (d) Subject

Air Transport Association (ATA) of America Code 28, Fuel.

#### (e) Unsafe Condition

This AD was prompted by significant changes made to airworthiness limitations (AWL) related to fuel tank ignition prevention and the nitrogen generation system. We are issuing this AD to prevent the development of an ignition source inside the fuel tanks and also to prevent increasing the flammability exposure of the center fuel tank, which could lead to fuel tank explosion and consequent loss of the airplane.

## (f) Compliance

Comply with this AD within the compliance times specified, unless already done.

# (g) Revision of Maintenance or Inspection Program

Within 60 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, to incorporate the information in Section A, including Subsections A.1, A.2, and A.3, of Boeing 737-600/700/700C/800/900/900ER Special Compliance Items/Airworthiness Limitations, D626A001-9-04, dated January 2017; except as provided by paragraph (h) of this AD. The initial compliance times for the airworthiness limitation instructions (ALI) tasks are within the applicable compliance times specified in paragraphs (g)(1) through (g)(11) of this AD:

- (1) For AWL No. 28-AWL-01, "External Wires Over Center Fuel Tank": Within 120 months after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, or within 120 months after the most recent inspection was performed as specified in AWL No. 28-AWL-01, whichever is later.
- (2) For AWL No. 28-AWL-03, "Fuel Quantity Indicating System (FQIS) Out Tank Wiring Lightning Shield to Ground Termination": Within 120 months after the date

of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, or within 120 months after the most recent inspection was performed as specified in AWL No. 28-AWL-03, whichever is later.

- (3) For AWL No. 28-AWL-19, "Center Tank Fuel Boost Pump Automatic Shutoff System": Within 12 months after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, within 12 months after accomplishment of the actions specified in Boeing Service Bulletin 737-28A1206, or within 12 months after the most recent inspection was performed as specified in AWL No. 28-AWL-19, whichever is latest. This AWL does not apply to airplanes that have complied with paragraph (s) of AD 2011-18-03.
- (4) For AWL No. 28-AWL-20, "Over-Current and Arcing Protection Electrical Design Features Operation Boost Pump Ground Fault Interrupter (GFI)": Within 12 months after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, within 12 months after accomplishment of the actions specified in Boeing Service Bulletin 737-28A1201, or within 12 months after the most recent inspection was performed as specified in AWL No. 28-AWL-20, whichever is latest. For airplanes that have complied with paragraph (g)(2)(ii) of AD 2011-20-07, the operational test for left center tank fuel boost pump relay R54 and right center tank fuel boost pump relay R55 does not apply.
- (5) For AWL No. 28-AWL-23, "Center Tank Fuel Boost Pump Power Failed On Protection System": Within 12 months after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, within 12 months after accomplishment of the actions specified in Boeing

Service Bulletin 737-28A1248, or within 12 months after the most recent inspection was performed as specified in AWL No. 28-AWL-23, whichever is latest. This AWL does not apply to airplanes that have complied with paragraph (s) of AD 2011-18-03.

- (6) For AWL No. 28-AWL-24, "Spar Valve Motor Operated Valve (MOV)

  Actuator Lightning and Fault Current Protection Electrical Bond": Within 72 months after accomplishment of the actions specified in Boeing Service Bulletin 737-28A1207, or within 72 months after the most recent inspection was performed as specified in AWL No. 28-AWL-24, whichever is later.
- (7) For AWL No. 28-AWL-29, "Full Cushion Clamps and Teflon Sleeving (If Installed) Installed on Out-of-Tank Wire Bundles Installed on Brackets that are Mounted Directly on the Fuel Tanks": For airplanes having line numbers (L/N) 1 through 1754 inclusive, within 120 months after accomplishment of the actions specified in Boeing Service Bulletin 737-57A1279. For airplanes having L/N 1755 and on, within 120 months after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, or within 24 months after the effective date of this AD, whichever is later.
- (8) For AWL No. 47-AWL-04, "Nitrogen Generation System Thermal Switch": Within 22,500 flight hours after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, within 22,500 flight hours after accomplishment of the actions specified in Boeing Service Bulletin 737-47-1003, or within 22,500 flight hours after the most recent inspection was performed as specified in AWL No. 47-AWL-04, whichever is latest.

- (9) For AWL No. 47-AWL-06, "Nitrogen Generation System (NGS) Cross Vent Check Valve": Within 13,000 flight hours after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, within 13,000 flight hours after accomplishment of the actions specified in Boeing Service Bulletin 737-47-1003, or within 13,000 flight hours after the most recent inspection was performed as specified in AWL No. 47-AWL-06, whichever is latest.
- (10) For AWL No. 47-AWL-07, "Nitrogen Generation System (NGS) Nitrogen Enriched Air (NEA) Distribution Ducting Integrity": Within 6,500 flight hours after the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness, within 6,500 flight hours after accomplishment of the actions specified in Boeing Service Bulletin 737-47-1003, or within 6,500 flight hours after the most recent inspection was performed as specified in AWL No. 47-AWL-07, whichever is latest.
- (11) For AWL No. 28-AWL-101, "Engine Fuel Suction Feed Operational Test": Within 7,500 flight hours or 36 months, whichever occurs first, after the date of issuance of the original airworthiness certificate or the date of issuance of the original export certificate of airworthiness; or within 7,500 flight hours or 36 months, whichever occurs first, after the most recent inspection was performed as specified in AWL No. 28-AWL-101; whichever is later.

#### (h) Exceptions to Service Information

As an option, when accomplishing the actions required by paragraph (g) of this AD, the changes specified in paragraphs (h)(1) and (h)(2) of this AD can be made to AWL No. 28-AWL-05.

- (1) Where AWL No. 28-AWL-05 identifies wire types BMS 13-48, BMS 13-58, and BMS 13-60, add the following acceptable wire types: MIL-W-22759/16, MIL-W-22759/32, MIL-W-22759/34, MIL-W-22759/41, MIL-W-22759/86, MIL-W-22759/87, and MIL-W-22759/92; and MIL-C-27500 cables constructed from these wire types.
- (2) Where AWL No. 28-AWL-05 identifies TFE-2X Standard wall for wire sleeving, add the following acceptable sleeving materials: Roundit 2000NX and Varglas Type HO, HP, or HM.

# (i) No Alternative Actions, Intervals, and Critical Design Configuration Control Limitations (CDCCLs)

After the maintenance or inspection program, as applicable, has been revised as required by paragraph (g) of this AD, no alternative actions (e.g., inspections), intervals, and CDCCLs may be used unless the actions, intervals, and CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k) of this AD.

#### (j) Terminating Actions

Accomplishment of the revision required by paragraph (g) of this AD terminates the requirements specified in paragraphs (j)(1) through (j)(5) of this AD for that airplane:

- (1) The revision required by paragraphs (h) and (h)(1) of AD 2008-06-03.
- (2) All requirements of AD 2008-10-10 R1.
- (3) The revision required by paragraph (g) of AD 2008-17-15.
- (4) The revision required by paragraph (k) of AD 2011-18-03; and

(5) All requirements of AD 2013-15-17.

#### (k) Alternative Methods of Compliance (AMOCs)

- (1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (l)(1) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.
- (2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.
- (3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

#### (I) Related Information

(1) For more information about this AD, contact Tak Kobayashi, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6499; fax: 425-917-6590; email: takahisa.kobayashi@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial

Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd.,

MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet

https://www.myboeingfleet.com. You may view this referenced service information at the

FAA, Transport Standards Branch, 1601 Lind Avenue SW., Renton, WA. For

information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on September 14, 2017.

Jeffrey E. Duven,

Director,

System Oversight Division,

Aircraft Certification Service.

[FR Doc. 2017-20560 Filed: 9/29/2017 8:45 am; Publication Date: 10/2/2017]

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